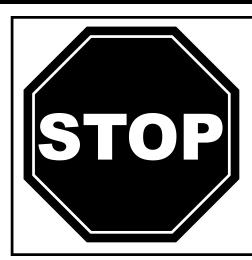




OWNERS MANUAL FORCED AIR NATURAL GAS CONSTRUCTION HEATER Model 150-FASNG



QUESTIONS? MISSING / DAMAGED PARTS

Please do not return this product to the store. If a part is damaged or missing, simply e-mail us at php@allpro-heaters.com, or visit our website at http://allpro-heaters.com, or call our Customer Service Department at (888) 619-7060. We will be happy to assist you! You can register your heater on line at http://allpro-heaters.com/warranty.

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HEATER SPECIFICATIONS

Type of Gas:

Gas Supply Pressure

For use with Natural Gas Only

to regulator regulator out Maximum: 1/2 psig (3.45 kPa)

4" W.C. (1.0 kPa)

Electrical Input:

115V, 60 Hz, 1Ø, 3a

Minimum Operating Voltage: 100V

Minimum: 5" W.C. (1.25 kPa)

Ignition:

Direct Spark, interrupted type Primary Flame Control:

Solid State, 10-15 Second Timing

High Temperature Control:

240°F (116°C)

Minimum Ambient Temp. Rating 0°F (-17.8°C)

Model: Rating:

150-FASNG 150,000 Btu/hr

(43.93 kW)

Fuel Consumption:

139 CuFt/HR

Fuel Orifice Port No.: Fuel Orifice Port Size:

0.0595

Heated Air Output:

450 cfm (12.74 cmm)

WARNINGS YOUR SAFETY IS IMPORTANT TO YOU AND TO OTHERS, SO PLEASE READ THESE INSTRUCTIONS BEFORE YOU OPERATE THIS HEATER.



GENERAL HAZARD WARNING:

FAILURE TO COMPLY WITH THE PRECAUTIONS AND INSTRUCTIONS PROVIDED WITH THIS HEATER, CAN RESULT IN DEATH. SERIOUS BODILY INJURY AND PROPERTY LOSS OR DAMAGE FROM HAZARDS OF FIRE, EXPLOSION, BURN. ASPHYXIATION, CARBON MONOXIDE POISONING, AND/OR ELECTRICAL SHOCK.

ONLY PERSONS WHO CAN UNDERSTAND AND FOLLOW THE INSTRUCTIONS SHOULD USE OR SERVICE THIS HEATER.

IF YOU NEED ASSISTANCE OR HEATER INFORMATION SUCH AS AN INSTRUCTIONS MANUAL, LABELS, ETC. CONTACT THE MANUFACTURER.

WARNING: NOT FOR HOME OR RECREATIONAL VEHICLE USE

WARNING: FIRE, BURN, INHALATION, AND EXPLOSION HAZARD. KEEP SOLID COMBUSTIBLES, SUCH AS BUILDING MATERIALS, PAPER OR CARDBOARD, A SAFE DISTANCE AWAY FROM THE HEATER AS RECOMMENDED BY THE INSTRUCTIONS NEVER USE THE HEATER IN SPACES WHICH DO OR MAY CONTAIN VOLATILE OR AIRBORNE COMBUSTIBLES, OR PRODUCTS SUCH AS GASOLINE, SOLVENTS, PAINT THINNER, DUST PARTICLES OR UNKNOWN CHEMICALS.

Scheu Products Company, Incorporated Mail: P.O. Box 250, Upland, CA 91785 Plant: 8855 Baker Ave., Rancho Cucamonga, CA 91730 Telephone: 800-325-7057 www.scheuco.com customerservice@scheuco.com





ANSIZ83.7/CGA2.14-2000

8688 September 2002

OPERATING PRECAUTIONS

SAFETY PRECAUTIONS

This is a natural gas, direct-fired, forced air heater. It's intended use is primarily temporary heating of buildings under construction, alteration or repair.

If natural gas leaks from a connection or fitting, it mixes with the surrounding air, forming a potentially explosive mixture. Obviously, gas leaks should be avoided, so set up the gas supply with utmost care. Read enclosed Odor Fade Sheet for additional information about detecting gas leaks. Leak check new connections or reconnections with a soap and water solution and follow all connections instructions herein.

This heater was designed and certified for use as a construction heater in accordance with ANSI Standard Z83.7/ CGA 2.14-2000. Check with your local fire safety authority if you have any questions about your applications. Other standards govern the use of fuel gases and heat producting products in specific applications. Your local authority can advise you about these.

Direct-Fired means that all of the combustion products enter the heated space. Even though this heater operates very close to 100 percent combustion efficiency, it still produces small amounts of carbon monoxide. Carbon monoxide (called CO) is toxic. We can tolerate small amounts but not a lot. CO can build up in a heated space and failure to provide adequate ventilation could result in death. The symptoms of inadequate ventilation are:

headache dizziness burning eyes and nose nausea dry mouth or sore throat

So, be sure to follow advice about ventilation in these operating instructions.

Forced Air means that a blower or fan pushes the air through the heater. Proper combustion depends upon this air flow; therefore, the heater must not be revised, modified or operated with parts removed or missing. Likewise, safety systems must not be circumvented or modified in order to operate the heater.

When the heater is to be operated in the presence of other people the user is responsible for properly acquainting those present with the safety precautions and instructions, and of the hazards involved.

- Check the heater thoroughly for damage. DO NOT operate a damaged heater.
- 2. DO NOT modify the heater or operate a heater which has been modified from its original condition.
- 3. Use only natural gas.
- 4. Provide at least 5" W.C. but not over 1/2 psig to the heater inlet (regulator inlet).
- 5. Use an appropriate hose or flexible connector not over 10 ft. (3.05m) in length.
- 6. Operate the heater only with the 4" W.C.regulator provided by the factory.
- 7. For indoor use only. Area must be well ventilated. **Figure 1**. (also see "Operating Precautions").
- 8. If at any time gas odor is detected, IMMEDIATELY
 DISCONTINUE operation until the source of gas has been located and corrected. Read enclosed Odor Fade Sheet for additional information about detecting gas leaks.
- 10. Install the heater such that is is not directly exposed to water spray, rain and/or dripping water.
- 11. Maintain minimum clearance from normal combustible material (like paper). **Figure 2**.
- 12. Due to the high surface and exhaust temperatures, adults and children must observe clearances to avoid burns or clothing ignition.
- 13. Operate only on a stable, level surface.
- 14. Do not use with ductwork. Do not restrict inlet or exit.
- 15. Use only the electrical power specified. The electrical connection and grounding must comply with National Electrical Code ANSI/NFPA 70.
- 16. Use only a properly grounded 3-prong receptacle and extension cord.
- 17. Do not move, handle or service while hot or burning.
- 18. Use only in accordance with local codes.

Figure 1 VENTILATION: Minimum openings required

	Opening	Opening
Heater	near floor	near ceiling
Infrared	. 1 ft²	1 ft²
Convection (25-VC)	. 1 ft ²	1 ft²
Convection (All others)	. 2 ft ²	2 ft ²
Radiant	. 2 ft ²	2 ft ²
Forced air (30K-125K BTU/HR)	. 1 ft ²	1 ft ²
Forced air (150-FAST, SPC-150T)	. 2 ft ²	2 ft ²
Forced air (3500-FACV, SPC-350)	. 3 ft ²	3 ft ²
Forced air (7000-FACV)	. 4 ft ²	4 ft²

Figure 2
MINIMUM CLEARANCE: From normal combustible material

		Radiant		Forced Air
Clearance	Infrared	Convection	Forced Air	7000-FACV
From floor			. 0 ft	0 ft
From outlet			. 6 ft	10 ft
From sides	. 3 ft	. 4 ft	. 2 ft	3 ft
From top		. 6 ft	. 3 ft	. 5 ft
From front	. 6 ft			
From rear	. 2 ft			

Locate 10 ft. from canvas or plastic tarpaulins or similar coverings and secure them to prevent flapping or movement due to wind action.

ODOR FADE WARNING



Asphyxiation Hazard

- Do not use this heater for heating human living guarters.
- · Do not use in unventilated areas.
- The flow of combustion and ventilation air must not be obstructed.
- Proper ventilation air must be provided to support the combustion air requirements of the heater being used.
- · Refer to the specification section of the heater's manual,

heater dataplate, or contact the *Scheu Products Company* to determine combustion air ventilation requirements of the heater.

- Lack of proper ventilation air will lead to improper combustion.
- Improper combustion can lead to carbon monoxide poisoning leading to serious injury or death. Symptom of carbon monoxide poisoning can include headaches dizziness and difficulty in breathing.

FUELGAS ODOR

LP gas and natural gas have man-made odorants added specifically for detection of fuel gas leaks.

If a gas leak occurs you should be able to smell the fuel gas. Since Propane (LP) is heavier than air you should smell for the gas odor low to the floor. ANY GAS ODOR IS YOUR SIGNAL TO GO INTO IMMEDIATE ACTION!

- Do not take any action that could ignite the fuel gas. Do not operate any electrical switches. Do not pull any power supply or extension cords. Do not light matches or any other source of flame. Do not use your telephone.
- Get everyone out of the building and away from the area immediately.
- Close all propane (LP) gas tank or cylinder fuel supply valves, or the main fuel supply valve located at the meter if you use natural gas.
- Propane (LP) gas is heavier than air and may settle in low

- areas. When you have reason to suspect a propane leak, keep out of all low areas.
- Use your neighbor's phone and call your fuel gas supplier and your fire department. Do not re-enter the building or area.
- Stay out of the building and away from the area until declared safe by the firefighters and your fuel gas supplier.
- FINALLY, let the fuel gas service person and the firefighters check for escaped gas. Have them air out the building and area before you return. Properly trained service people must repair any leaks, check for further leakages, and then relight the appliance for you.

ODORFADING-NO ODOR DETECTED

- Some people cannot smell well. Some people cannot smell the odor of the man-made chemical added to propane (LP) or natural gas. You must determine if you can smell the odorant in these fuel gases.
- Learn to recognize the odor of propane (LP) gas and natural gas. Local propane (LP) gas dealers will be more than happy to give you a scratch and sniff pamphlet. Use it to become familiar with the fuel gas odor.
- Smoking can decrease your ability to smell. Being around an odor for a period of time can affect your sensitivity to that particular odor. Odors present in animal confinement buildings can mask fuel gas odor.
- The odorant in propane (LP) gas and natural gas is colorless and the intensity of its odor can fade under some circumstances.
- If there is an underground leak, the movement of gas through the soil can filter the odorant.
- Propane (LP) gas odor may differ in intensity at different levels. Since Propane (LP) gas is heavier than air, there may be more odor at lower levels.
- Always be sensitive to the slightest gas odor. If you
 continue to detect any gas odor, no matter how small, treat it
 as a serious leak. Immediately go into action as discussed
 previously.

ATTENTION-CRITICAL POINTS TO REMEMBER!

- Propane (LP) gas has a distinctive odor. Learn to recognize these odors. (Reference Fuel Gas Odor and Odor Fading sections above.
- Even If you are not property trained in the service and repair of the heater, ALWAYS be consciously aware of the odors of propane (LP) gas and natural gas.
- If you have not been properly trained in repair and service of propane (LP) gas then do not attempt to light heater, perform service or repairs, or make any adjustments to the heater on the propane (LP) gas fuel system.
- A periodic sniff test around the heater or at the heater's joints; i.e. hose, connections, etc., is a good safety practice under any conditions. If you smell even a small amount of gas, CONTACT YOUR FUEL GAS SUPPLIER IMMEDIATELY. DO NOT WAIT!

OPERATING INSTRUCTIONS

PREPARING FOR OPERATION

- 1. Check the heater for possible shipping damage. If any is found, *immediately* notify the factory.
- 2. Follow all of the "Precautions".
- 3. Install plumbing to a low pressure (1/2 psig maximum) source of natural gas, using a minumum 3/4" ID hose or flexible connector not over 10 ft. (3.05m) in length.
- Connect the hose to the heater at the 1/2" SAE flare fitting at the regulator inlet.
- 5. Securely tighten all gas connections.
- 6. Open the gas cock and check all gas connections with a soap and water solution. DO NOT USE A FLAME.
- 7. Connect power cord to well-grounded 115V, 60 Hz, $1\varnothing$ source of power.
- 8. When using an extension cord, make certain that it is a 3-wire (grounded) cord of proper wire size.

START

- 1. Slowly open the gas cock at the natural gas source..
- Turn toggle switch on heater to the "On" position and the heater will ignite.

STOP

- 1. Securely close the gas cock at the gas source.
- 2. Continue to operate heater until all fuel in the hose has
- 3. Turn toggle switch on the heater to the "Off" position.

RESTARTAFTER SAFETY SHUTDOWN

- 1. Securely close the gas cock at the natural gas sourace.
- 2. Wait 5 minutes.
- 3. Restart following "Start" procedure.

MAINTENANCE AND STORAGE

1. The heater should be inspected before each use, and at least annually by a qualified person.

SERVICING

A hazardous condition may result if a heater is used that has been modified or is not functioning properly. When the heater is working properly:

- * The flame is contained within the heater.
- * The flame is essentially blue with perhaps some yellow tipping.
- * There is no strong disagreeable odor, eye burning or other physical discomfort.
- * There is no smoke or soot internal or external to the heater.
- * There are no unplanned or unexplained shut downs of the heater

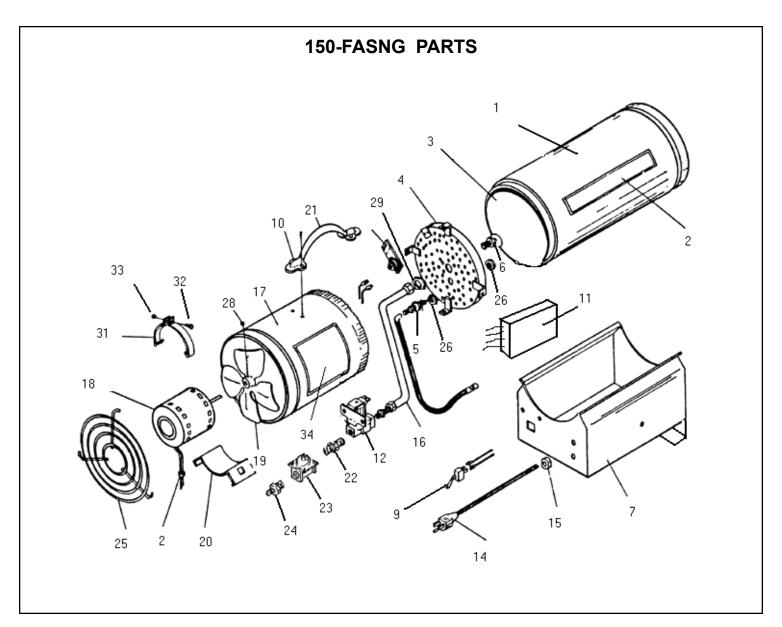
The parts lists and wiring diagram show the heater as it was constructed. Do not use a heater which is different from that shown. For this heater, the regulator must be set to supply 4" water column (W.C) outlet pressure. If there is any uncertainty about the regulator setting, have it checked.

A heater which is *not* working right must be repaired, but *only* by a trained, experienced service person. To find the service center closest to you, visit our website at www.scheuco.com.or call (888) 619-7060.

You may also obtain in-warranty or out-of-warranty service by taking the product to your local service center.

In-warranty products will be repaired with no charge for either parts or labor. Please include a brief statement indicating date, place of purchase, the nature of the problem and proof of purchase.

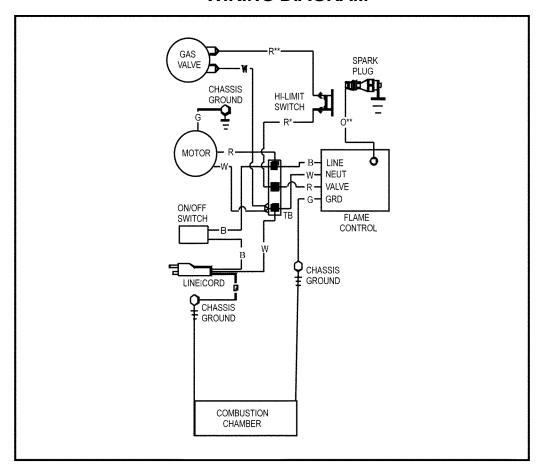
Out-of-warrranty products will be repaired with a charge for parts and labor.



Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	1700	Burner Shell Ass'y	1	21	7095	Handle Ass'y	1
2	6225	Snap Bushing, 5/8"	1	22	6146	Fitting, Reducing Nipple	1
3	1672	Middle Cylinder	1	23	6259	Regulator	1
4	1146	Flame Holder Ass'y	1	24	6125	Fitting, Male Connector	1
5	1083	Spark Plug	1	25	3087	Grill, Inlet	1
6	1216	Orifice Ass'y	1	26	3037	Nut, Spark Plug	3
7	1741	Control Box Ass'y	1	*	7295	Label, Wiring Diagram	1
8	1550	High Limit Switch	1	28	6010	Set Screw	1
9	6170	Toggle Switch	1	29	3038	Nut, Orifice	1
10	7094	Clip, Handle Mtg.	2	30	8682	Label, Logo	2
11	7808	Flame Control, potted	1	31	3133	Support, Motor Strap	2
12	6100	Solenoid Valve	1	32	6030	Screw, Machine	1
13	6123	Fitting, Male Connector	1	33	6053	Nut, Lock	1
14	1036	Power Cord	1	34	6428	Label, Operating/Instruction	1
15	6223	Bushing, Strain Relief	1	*	6189	Terminal, "Y" Adaptor	1
16	1171	Fuel Tube Ass'y	1	*	8688	Manual, Operating Instructions	1
17	1939	Motor Shell	1	*	8679	Label, BTU Rating	1
18	1561	Motor Ass'y	1	*	6384	Label, NG	1
19	6074	Fan Blade	1	*	7348	Label, Warning	1
20	3132	Saddle, Motor Support	1	*	7704	Label, Warning	1
		•		*	8685	Striping	1
				* Not shown on exploded view			

MODEL 150-FASNG

WIRING DIAGRAM



COLOR	CODE	LEGEND
B BLACK L BLUE G GREEN O ORANGE	R RED W WHITE	■ TERMINAL BOARD ★ Y TERMINAL ← MALE CONN ➤ FEMALE CONN

If any original wiring as supplied with the heater must be replaced, it must be replaced with type AWG 105° C wire or its equivalent except as indicated (*type SF2-200, **SGI 250° C).

WIRING CHART

PART NO.	COLOR	LENGTH	FROM	ТО
1100 1040 1226 1226 1070 1959 1959 1959	White Black Red (Hi-Temp) Red (Hi-Temp) Orange Green Red White Black	7" 6" 16 1/2" 16 1/2" 11" 7" 7" 6"	Valve On/Off Switch High Limit Switch High Limit Switch Flame Control (Ignition) Flame Control (Harness) Flame Control (Harness) Flame Control (Harness) Flame Control (Harness)	Terminal Block Terminal Block Valve Terminal Block Spark Plug Ground Terminal Block Terminal Block Terminal Block

WARRANTY

We are pleased that you have selected our product and take this opportunity to assure you that qualified service facilities are available if required. With the cooperation of independent dealers, a nationwide network of authorized servicing dealers is available for your servicing requirements.

Should your product require servicing, read the section of the manual entitled "Servicing".

Who gets the warranty? The warranty is limited to the consumer who originally purchases the product.

What is covered? This limited warranty covers all imperfections in workmanship and material.

What is not covered? This limited warranty does not cover damage resulting from accident, misuse or abuse, lack of proper maintenance, affixing of any attachments not provided with the products, or loss of parts. IN NO EVENT SHALL SCHEU PRODUCTS COMPANY BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES NOR FOR ANY DAMAGES RESULTING FROM MISUSE OR MODIFICATION OF THIS PRODUCT.

Registering this heater within 10 days of date of purchase ensures the buyer the protection as stated on our limited warranty form.

LIMITEDWARRANTY

The company warrants this product to be free from imperfections in material or workmanship, under normal and proper use in accordance with instructions of The Company, for a period of one year from the date of delivery to the buyer. The Company, at its option, will repair or replace (f.o.b. factory, California) products returned by the buyer to the factory, California, transportation prepaid within said one year period and found by the Company to have imperfections in material or workmanship.

If a part is damaged or missing, simply e-mail us at php@scheuco.com, visit our website at scheuco.com, or call our Technical Support Department at (888) 619-7060.

Address any Warranty Claims to the Customer Service Department, Scheu Products Company, Incorporated, P.O. Box 250, Upland, California 91785, or e-mail us at php@scheuco.com. Include your name, address and telephone number and include details concerning the claim. Also, supply us with the purchase date and the name and address of the dealer from whom you purchased our product.

The foregoing is the full extent of the responsibility of the Company. There are no other warranties, express or implied. Specifically there is no warranty of fitness for a particular purpose and there is no warranty of merchantability. In no event shall the Company be liable for delay caused by imperfections, for consequential damages, or for any charges of the expense of any nature incurred without its written consent. The cost of repair or replacement shall be the exclusive remedy for any breach of warranty. There is no warranty against infringement of

the like and no implied warranty arising from course of dealing or usage of trade. This warranty will not apply to any product which has been repaired or altered outside of the California factory in any respect which in our judgment affects its condition or operation.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights, and you may have other rights which vary from state to state.

SERVICE CENTERS

Scheu Products Company has over 1,000 service centers throughout North America. Call (888) 619-7060 or email php@scheuco.com to request the service center nearest you. Include the Make and model of your heater in any emails.

INSTRUCTIONS FOR ORDERING PARTS

We recommend that only parts supplied by the manufacturer be used on this unit. A locally purchased part may appear to be identical, although in reality it might endanger the heater or the persons operating the heater.

The heater should be serviced only by a trained, experienced service person.

Read the section on "Servicing" before ordering parts.

For parts orders, call 888-619-7060 or e-mail us at php@scheuco.com. Please have the model number of your heater and the replacement part number when placing your order.

Hand print only. Use black or blue ink pen to fill in this form. Cross or check inside the circle.

Warranty Registration

Your Information							
First Name		***************************************	Last name)			
Mailing Address			iiiii		iii		
						-	
City				ii ii. State F	ostal code	i :l	
E-mail Address				lllll			
Annual house hold inco	ome before tax	> \$9,999 (\$10,000 to \$19,99	9 \$20,000 to \$34,999	\$20,000	0 to \$34,999	>\$50,000
Age of Purchaser (<20 years 20	-29 years (30-39 years	40-49 years) 50-59 years	>60 years	
		`	Fold Here				
Your Preference	e						
Who selected the heater?	~	O = 1		In choosing your were:	heater the fo	llowing cateo	jories
Heater will be used by?	Male Female	Business			Somewhat Important	Important	Very Important
How did you learn	Advertising Relative/friend Store display Previously owned heater Other			Features	0	0	O
about our heater?				Portability	0	0	0
				Price	0	0	0
What prompted you to	Sudden cold weather Emergency backup heat			Quality	0	0	0
buy your heater?	Replaces old model Hard to heat location Heater on sale Other			Heat Output	0	0	0
				Warranty	\bigcirc	\bigcirc	0
	Construction project			Serviceability	0	0	0
Where will you use the	Construction site	Warehous	se .	Fuel economy	0	0	Ö
heater?	Shop	Patio		Ease of use	0	0	O
	Other	O		Size	0	0	O
			Fold Here				
Product Informa	tion						
Date of Purchase (MM/DD/YY)	Cost of Heater (\$)	S/N (Loc	ated on a silver label	on heater) Model Nui	mber (Located on a	black and white lab	el on heater)
Brand Name) All Pro	0	Universal	0	National Riversi	de	
Store Informatio	n where heater	was purc	hased				
0							04-4-
Type of Store Hard	ware Home Center	City Warehouse	Retailer Disc	count Store Farm St	upply Ocon	tractor's Supply	State Other

Registering this heater within 10 days of purchase ensures the buyer the protection as stated on our limited warranty form.

SCHEU PRODUCTS COMPANY, INC ATTN: MARKETING DEPARTMENT 8855 BAKER AVENUE RANCHO CUCAMONGA, CA 91730

Visit our website for product information, technical support, customer service, and warranty registration at: WWW.ALLPRO-HEATERS.COM for All-Pro products or WWW.UNVERISAL-HEATERS.COM for Universal products.